

# Notice of Allowability

Application No.

10/759,653

Examiner

Linh T. Nguyen

Applicant(s)

MASHIMO, AKIRA

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/16/04.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER

## DETAILED ACTION

### *Allowable Subject Matter*

Claims 1-10 are allowed.

In regards to claim 1, none of the references of record alone or combination disclose or suggest an optical disk apparatus for recording or reproducing data on and from an optical disk, the apparatus comprising: a wobble of said optical disk being a saw tooth wobble which is obtained as a result of a sine wave being added to or subtracted from a cosine wave of predetermined frequency; light-receiving means for receiving a laser beam reflected from said optical disk; and wobble processing means for acquiring a wobble signal from a signal output from said light-receiving means, wherein said wobble processing means comprises differentiating means for differentiating a signal output from said light-receiving means; binarizing means for binarizing a differential signal from said differentiating means through use of a threshold value; **pulse length detection means for detecting pulse lengths of two values of a binary signal from said binarizing means**; and demodulation means for demodulating said binary signal in accordance with said pulse lengths of said respective two values of said binary signal.

In regards to claim 8, none of the references of record alone or combination disclose or suggest an optical disk apparatus for recording or reproducing data on and from an optical disk, the apparatus comprising: a wobble of said optical disk being a saw tooth wobble including a +STW signal obtained as a result of a sine wave being

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added to a cosine wave of predetermined frequency and a -STW signal obtained as a result of a sine wave being subtracted from said cosine wave of predetermined frequency; a pickup for receiving a laser beam reflected from said optical disk; a band pass filter for extracting a wobble signal of predetermined frequency from a signal output from said pickup; a differentiator for differentiating a signal output from said band pass filter; a binarizer for binarizing a differential signal from said differentiator through use of a threshold value; and a decoder which detects, from binary signal output from said binarizer, a signal length equal to or larger than said threshold value and a signal length smaller than said threshold value and which determines said binary signal as said +STW signal when said signal length equal to or larger than said threshold value is longer than said signal length smaller than said threshold value and which determines said binary signal as said -STW signal when said signal length equal to or larger than said threshold value is shorter than said signal length smaller than said threshold value.

#### Cited References

Mashimo (US Patent Number 6680892) discloses an optical disk device that compares a RF signal with a threshold value to output a binary signal.

Mashimo (US Patent Number 6670831) discloses an optical disk device that measures the width of an input pulse signal to eliminate chattering noise.

Inokuchi et al (US Publication number 20020067676) discloses an optical disk apparatus for reading wobble signal from an optical disk and adjusting the amplitudes of the signal.

Andoh (US Patent Number 6351441) discloses an apparatus comprises of a wobble servo control in order to control the speed of the optical disk.

Akiyama et al (US Publication number 20030185122) discloses an apparatus that record/reproduce/erase information with respect to the optical information recording medium onto the test recording track.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN  
November 27, 2006



WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER